

In the Claims

Amend the following claims:

1 1. (Amended) A positioner for moving an E-block and a data transducer of a disk drive
2 relative to a storage disk, the E-block having a longitudinal axis, the positioner comprising:
3 a magnet assembly producing a magnetic field; and
4 a coil array that couples to the E-block and is positioned near the magnet assembly, the
5 coil array being a generally D-shaped loop including a first segment that is positioned
6 substantially perpendicular to the longitudinal axis of the E-block, the first segment being
7 adapted to interact with the magnetic field to move the E-block relative to the storage disk.

1 13. (Amended) A head stack assembly for moving a data transducer of a disk drive
2 relative to a target track of a storage disk, the head stack assembly comprising:
3 an E-block having a longitudinal axis;
4 a transducer assembly secured to the E-block, the transducer assembly including a data
5 transducer;
6 a positioner including (i) a magnet assembly producing a magnetic field, (ii) a coil array
7 secured to the E-block and positioned near the magnet assembly, the coil array being a generally
8 D-shaped loop including a first segment positioned substantially perpendicular to the
9 longitudinal axis, the first segment including (i) a first portion, and (ii) a second portion; and
10 a control system that directs current to the coil array to move the data transducer relative
11 to the target track.

1 20. (Amended) A method for retrieving data from a target track on a rotating storage
2 disk of a disk drive, the method comprising the steps of:
3 providing an E-block with a longitudinal axis;
4 securing a transducer assembly to the E-block, the transducer assembly including a data
5 transducer;
6 providing a magnet assembly producing a magnetic field;

7 coupling a coil array to the E-block with the coil array being positioned near the magnet
8 assembly, the coil array being a generally D-shaped loop including (i) a first portion; and (ii) a
9 second portion, the first and second portions being perpendicular to the longitudinal axis, the first
10 and second portions being positioned symmetrically about the longitudinal axis; and
11 directing current to the coil array to move the data transducer relative to the target track.

210
1 21. (Amended) The method of claim 20 wherein directing current to the coil array
2 includes directing current to the first portion and the second portion to generate a first force and a
3 second force, respectively, wherein the first force is substantially equal in magnitude and
4 opposite in direction to the second force.

Add the following claims:

211
1 23. A positioner for moving a data transducer relative to a storage disk in a disk drive,
2 the positioner comprising:
3 a magnetic assembly including an upper magnetic array and a lower magnetic array; and
4 a coil array between the magnetic arrays, wherein the coil array is a generally D-shaped
5 loop.

1 24. The positioner of claim 23 wherein the coil array includes a first segment and a
2 second segment, the first segment is substantially linear and the second segment forms an arc.

1 25. The positioner of claim 24 wherein the first segment is substantially perpendicular
2 to a longitudinal axis of a head stack assembly that includes the data transducer.

1 26. The positioner of claim 25 wherein the second segment forms an arc that is
2 centered at a pivot center of the head stack assembly.

1 27. The positioner of claim 25 wherein the first and second segments are positioned
2 symmetrically about the longitudinal axis.

1 28. The positioner of claim 25 wherein the first segment includes a first portion, a
2 second portion and a center portion therebetween, the first and second portions are positioned
3 between the magnetic arrays, and the center portion is not positioned between the magnetic
4 arrays.

1 29. The positioner of claim 23 wherein the magnetic arrays each include an inner side,
2 an outer side, and a pair of side wings therebetween, the inner side faces towards the data
3 transducer and forms an arc, and the outer side faces away from the data transducer.

1 30. The positioner of claim 29 wherein the inner side forms an arc that is centered at a
2 pivot center for the data transducer.

1 31. The positioner of claim 29 wherein the inner and outer sides are curved with
2 reverse concavity relative to one another.

1 32. The positioner of claim 29 wherein the coil array includes first and second
2 segments and a pair of corners therebetween, and the corners are disposed on opposites sides of a
3 longitudinal axis of a head stack assembly that includes the data transducer.

1 33. The positioner of claim 32 wherein the corners are substantially aligned with the
2 wings in a direction perpendicular to the longitudinal axis.

1 34. The positioner of claim 32 wherein the corners are not substantially aligned with
2 the wings in a direction parallel to the longitudinal axis.

1 35. The positioner of claim 23 wherein the magnetic arrays extend a first distance
2 parallel to a longitudinal axis of a head stack assembly that includes the data transducer, the coil
3 array extends a second distance parallel to the longitudinal axis, and the first distance is greater
4 than the second distance.

1 36. The positioner of claim 23 wherein the magnetic arrays extend a first distance
2 perpendicular to a longitudinal axis of a head stack assembly that includes the data transducer,
3 the coil array extends a second distance perpendicular to the longitudinal axis, and the first and
4 second distances are essentially identical.

1 37. A positioner for moving a data transducer relative to a storage disk in a disk drive,
2 the positioner comprising:

3 a magnetic assembly including an upper magnetic array and a lower magnetic array;

4 a coil array between the magnetic arrays, wherein the coil array is a generally D-shaped
5 loop of wire wrapped into a plurality of turns that includes a first segment and a second segment,
6 the first segment is substantially linear and the second segment forms an arc; and

7 a control system that electrically excites the coil array to interact with a magnetic field of
8 the magnetic assembly.

1 38. The positioner of claim 37 wherein the first segment includes a first portion, a
2 second portion and a center portion therebetween, the first and second portions are positioned
3 between the magnetic arrays, and the center portion is not positioned between the magnetic
4 arrays.

1 39. The positioner of claim 37 wherein the magnetic arrays extend a first distance
2 parallel to a longitudinal axis of a head stack assembly that includes the data transducer, the coil
3 array extends a second distance parallel to the longitudinal axis, and the first distance is greater
4 than the second distance.

1 40. The positioner of claim 37 wherein the magnetic arrays extend a first distance
2 perpendicular to a longitudinal axis of a head stack assembly that includes the data transducer,
3 the coil array extends a second distance perpendicular to the longitudinal axis, and the first and
4 second distances are essentially identical.